5S Methodology in Electrical Maintenance Department



1 SORT	2 SET IN ORDER	3 SHINE	4 STANDARDIZE	5 SUSTAIN
ELIMINATE UNNECESSARY	A PLACE FOR EVERYTHING	CLEAN & INSPECT	FOLLOW STANDARDS	MAINTAIN & IMPROVE

- SAFETY FIRST
- LESS DOWNTIME
- HIGHER PRODUCTIVITY
- BETTER WORKPLACE

5S Methodology

In Electrical Maintenance Department for

Clean, Safe & Efficient Workplace

Objective of Training

- 5S [illegible] [illegible] [illegible] [illegible]
- Department [illegible] Implement [illegible] [illegible] [illegible]
- Safety + Efficiency [illegible]
- Breakdown & Wastage [illegible]

What is 5S?

- Japanese Methodology

What is 5S?

- Workplace Organization System

- **<u>5 Steps</u>**:

1. Sort
2. Set in Order
3. Shine
4. Standardize
5. Sustain

Why 5S in Electrical Department?

- Tools easily □□□
- Breakdown time □□□ □□□
- Accident risk □□□
- Productivity □□□

Current Problems (Reality Check)

- Tools Missing
- Cable Clutter
- Panel Dust
- Spare Parts Mix-up

1st “S” – SORT (Seiri)

- **What is Sort?**
- [illegible] vs [illegible] [illegible] [illegible] [illegible]
- Unwanted items [illegible] [illegible]

Sort Examples

- Burnt cables remove

- Faulty tools discard

- Unused spares identify





Red Tag System

- Red Tag □□□□□□□ identify □□□
- “Use / Not Use / Scrap” decision □□

Use / Not Use / Scrap



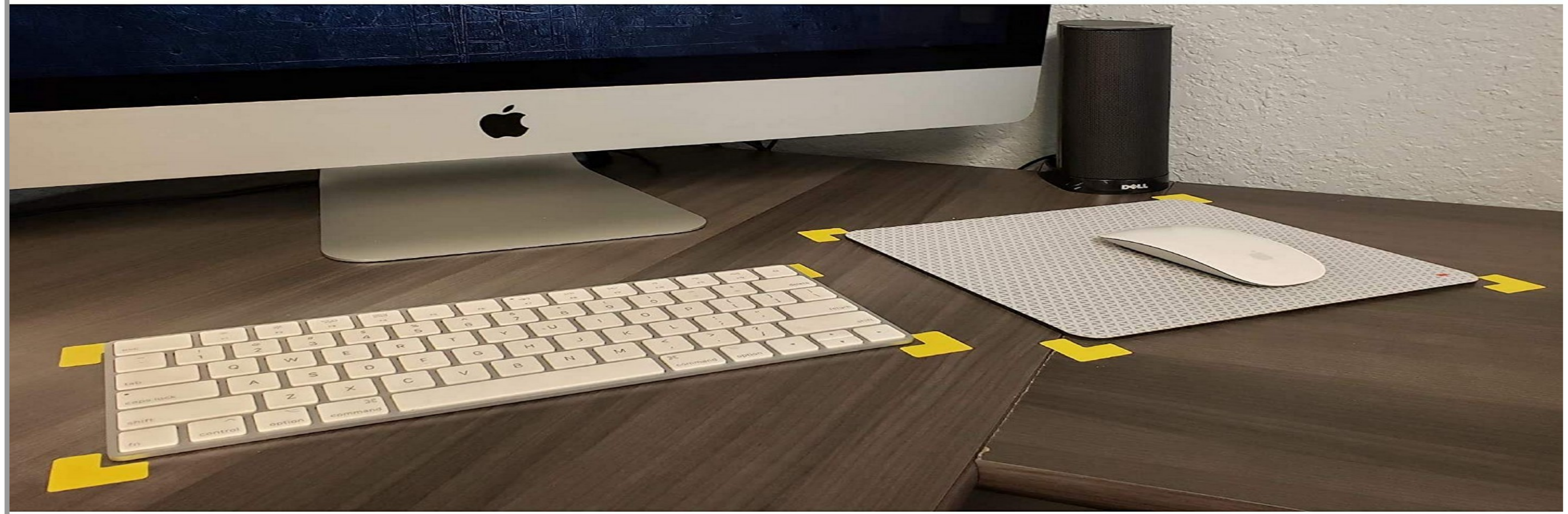
Benefits of Sort

- Space free □□□
- Searching time □□□
- Clarity □□□

<u>2nd “S” – SET IN ORDER (Seiton)</u>

- **What is Set in Order?**
- □□□□ □□□□□□□ fixed □□□□□
- “A place for everything”

A Place for Everything



Practical Examples

- Tool shadow board
- Cable tray □□□□□□□□□
- Labelling on panels

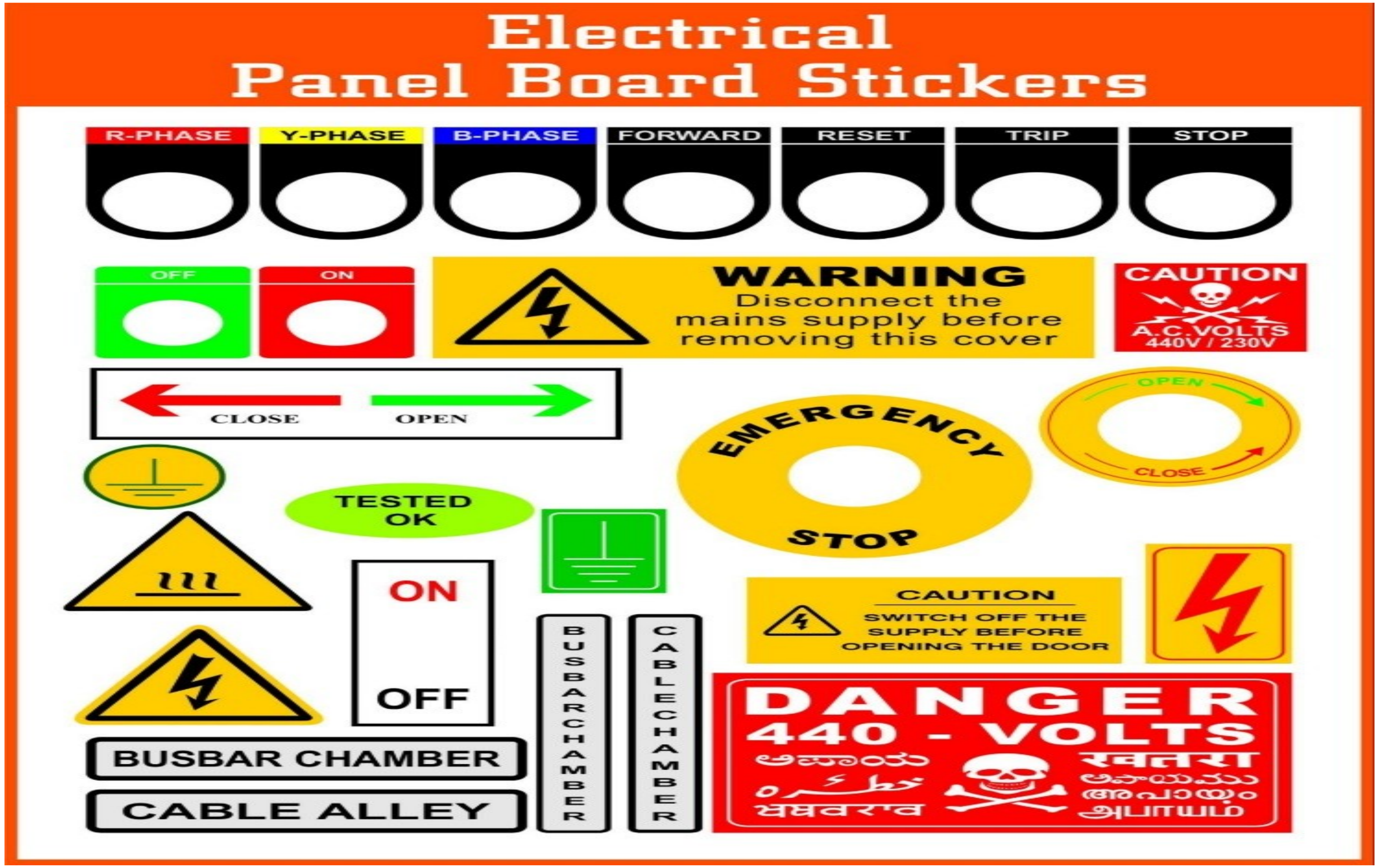
Tool shadow board



Cable tray □□□□□□□□□□



Labelling on Panels



Colour Coding

- Phase : R-Y-B
- Danger : Red
- Safe : Green

Benefits

- Time saving
- Easy access
- No confusion

3rd “S” – SHINE (Seiso)

- **What is Shine?**
- Cleaning + Inspection
- “Clean is Safe”

Clean is Safe





Practical Examples

- Panel cleaning
- MCC room cleaning
- Oil leakage cleaning



Inspection During Cleaning

- Loose connection

- Heating marks

- Dust accumulation



Benefits

- Breakdown prevention
- Safety improve
- Equipment life increase

4th “S” – STANDARDIZE (Seiketsu)

- **What is Standardize?**
- Best Practices Fix □□□□
- SOP for Everything

Examples

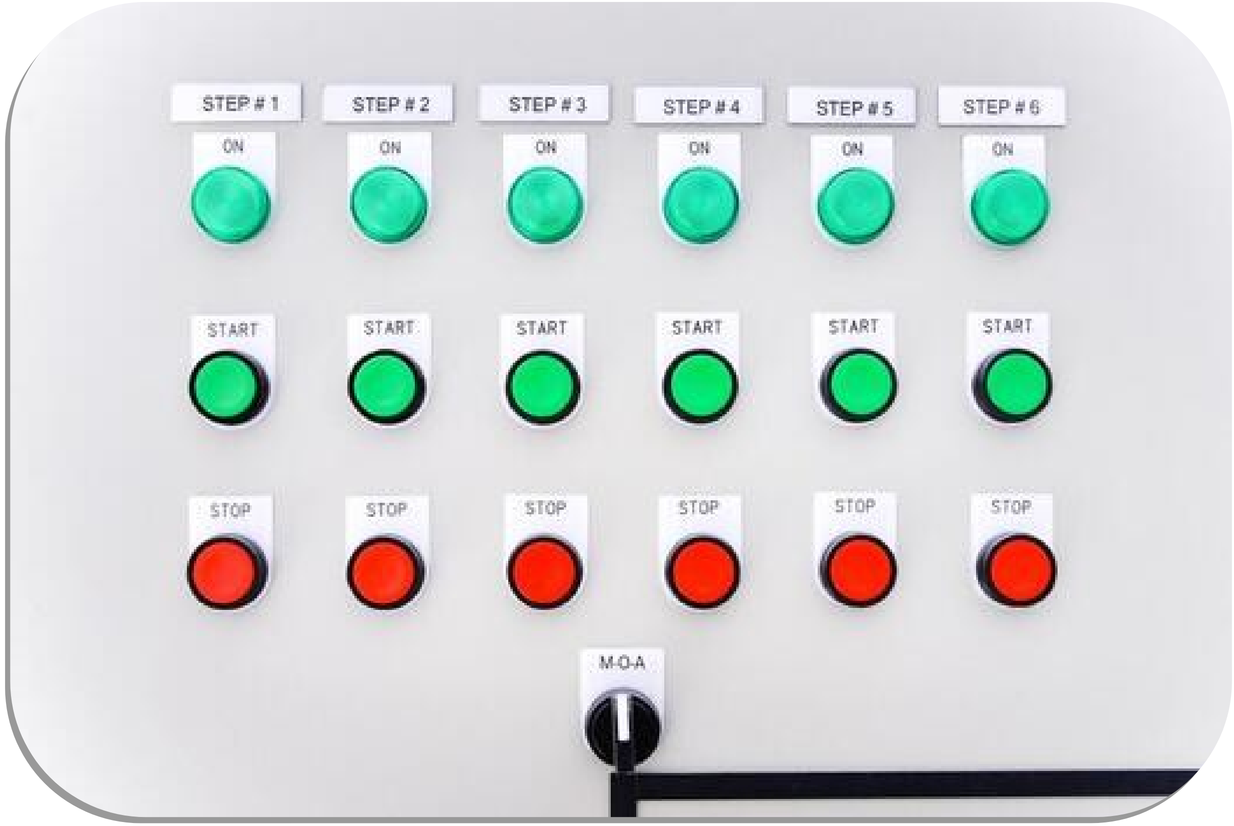
- Cleaning schedule
- Tool arrangement chart
- Checklist for Equiments

Visual Controls

- Labels
- Floor marking
- Sign boards

Labels


SPEED
RESET
START
STOP
MANUAL
TURRET INDEX
TURRET INDEX
MANUAL AUTO


STEP # 1
STEP # 2
STEP # 3
STEP # 4
STEP # 5
STEP # 6
ON
ON
ON
ON
ON
ON
START
START
START
START
START
START
STOP
STOP
STOP
STOP
STOP
STOP
M-O-A

Labels

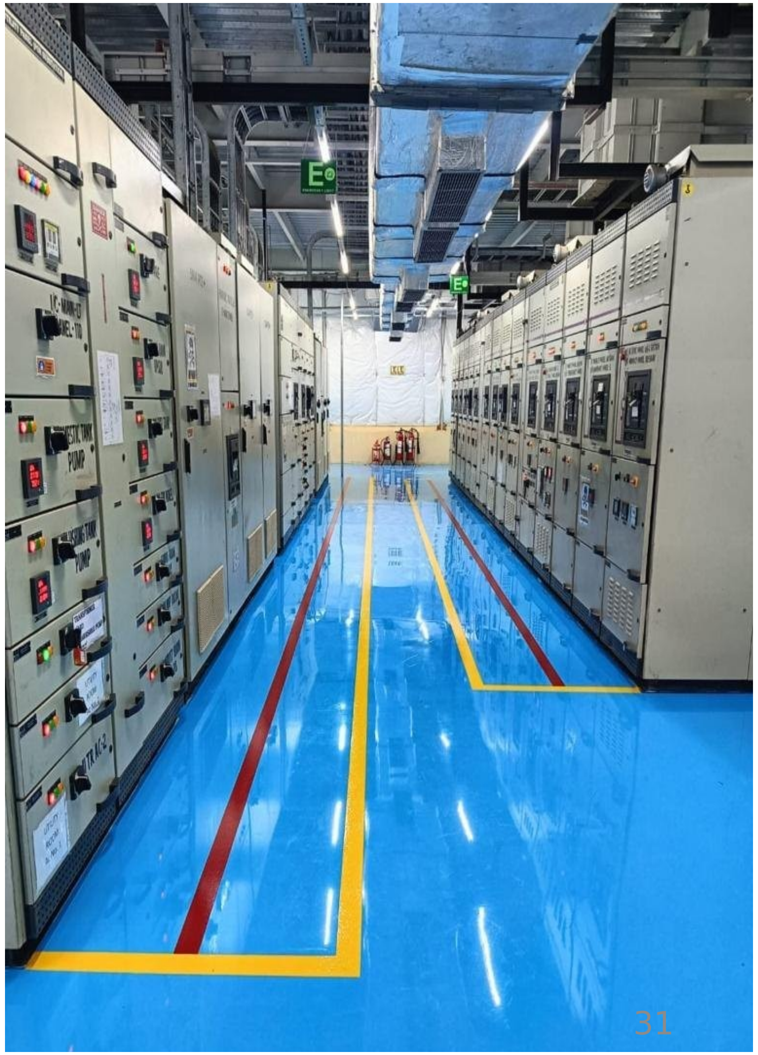




Floor marking







Sign boards


ELECTRICAL SAFETY SIGNS
WARNING
ARC FLASH AND SHOCK HAZARD
Appropriate PPE and Tools Required when working on this equipment
CAUTION
ELECTRICITY
DANGER
440 VOLTS
CAUTION
DANGER OF DEATH
DANGER
440 VOLTS
EPA
ESD PROTECTED AREA
DANGER
LIVE WIRES
WARNING
120 / 208 VAC
Lockout / tagout before servicing.

Benefits

- Uniform System

- Easy Training

- Less Errors

5th “S” – SUSTAIN (Shitsuke)

- **What is Sustain?**
- Discipline Maintain □□□□
- Habit □□□□□□

How to Sustain?

- Regular Audits
- Training
- Team Involvement

Role of Employees

- Technician: Cleaning & arrangement

- Engineer: Monitoring + inspection

- Manager: Review & control

Audit System

- Weekly Audit
- Checklist Based
- Score System

Before vs After

- Clutter vs Organized
- Risk vs Safe
- Delay vs Fast work

Safety Link with 5S

- Slip, trip hazards reduce
- Fire risk reduce
- Electrical safety improve

Productivity Impact

- Less Downtime
- Fast Troubleshooting
- Better Performance

Success Story

- 30% Time Saving
- 50% Breakdown Reduction
- Better Moral

Activity

- Identify 5 problems in your area

- Suggest 5S solution

- Implement in 1 week

Conclusion

“5S is not Cleaning… It is Culture”

&

“Discipline leads to Excellence”